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Report of One Year's Work in Surgery



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One Year's Work in Surgery

By J. EMMONS BRIGGS, M. D., SURGEON, MASS. HOMEOPATHIC HOSPITAL,
BOSTON, MASS.

Total number of operations performed during the year	
1905	701
Total number of deaths	22
Death rate	3.12

Classification of operations:

Intra-peritoneal operations.

Abdominal hysterectomy	
Tubo-ovariotomy,	
etc.	149
Appendicitis	147
Caesarean section	2
Cholecystectomy	11
Cholecystostomy (cancer)	2
Gastroenterostomy	2
Gastrostomy	1
Herniotomy	31
Salpingectomy, for ruptured tubal pregnancy	3
Vaginal hysterectomy	13
Total,	361

Extra-peritoneal operations.

Amputation of breast.....	12
Amputation of extremities	4
Brain surgery	3
Fractures and dislocations	30
Genito-urinary	25
Gynecological	149
Kidney	10
Lymphatic system	16
Miscellaneous	74
Osseous system	12
Respiratory system	5
Total	340

Causes of Death.

Cancer of Breast (apoplexy 29 days after operation)	1
Empyema of Lung	1

Carcinoma of Stomach, (60 days after Witzel's operation)	I
Carcinoma of Intestine	3
Intestinal Obstruction	3
Perforated Duodenal Ulcer, with General Peritonitis	I
Carcinoma of Gall-Bladder and Liver (6 weeks after operation)	I
Cholelithiasis and Gangrene of the Gall-Bladder,	I
Carcinoma of Uterus	I
Myofibroma	I
Salpingitis	I
Appendicitis with General Septic Peritonitis	4
Strangulated Hernia (bowel gangrenous) ..	I
Gangrene of leg	I
Septicaemia following Traumatism	I
Total	22

These operations were performed at the Massachusetts Homoeopathic Hospital (Boston), Frost Hospital (Chelsea), Whidden Memorial Hospital (Everett), Newton Hospital, Westboro Insane Hospital, Anna Jaques Hospital (Newburyport), Morton Hospital (Taunton), Brockton Hospital, Hampden Homoeopathic Hospital (Springfield), and in private houses. These operations include both hospital and private work done during the year 1905, but do not take into account operations performed by my assistants.

It would seem decidedly discouraging if in reviewing a year's work in surgery one could not see some true progress made. But what of Progress? Is it not a sort of "will-o'-the-wisp," a phantom idealized? In medicine heralded as a specific, in surgery as "a solution of the whole problem." But have we ever discovered a specific, and do we not have to solve the surgical problem over and over again?

The degree of civilization attained by a people can be estimated by the care and attention bestowed upon its aged, sick, and infirm. Wealth can contribute its treasure in no greater philanthropy than in erecting and supporting hospitals. Benevolent individuals have founded these institutions; the nation, state, city or town draw upon the common fund for their erection and maintenance.

Nearly every city and many of our larger towns support one or more hospitals, and the suburban hospital has become an important factor in the commonwealth.

In the majority of these suburban hospitals both schools of medicine are represented upon the staff, and very amicable relations exist. No other one factor has contributed so much toward unity and good fellowship among professional brethren who in an evil hour became estranged. The suburban hospital has been a potent factor in elevating the standard of medical knowledge, as a wholesome rivalry has been engendered among the members of the staff to excel, especially along surgical lines.

The suburban hospital has been to a great extent responsible for the great change which has occurred in our city hospitals as well as the character of the operations which drift into the hands of specialists.

Judging from my own work this inference can be drawn, that practically all of the minor gynecological cases, such as lacerations of the cervix and perineum, are operated upon in suburban hospitals by general practitioners, or repaired immediately after confinement. This leaves for our large city hospitals and specialists a greater portion of capital operations than ever before. In my own hospital and private work during the past year over three hundred and sixty abdominal operations were made.

In presenting this paper the writer will make no claims to have excelled in any respect, nor to have been the originator of any original methods, but rather to have laboriously toiled along well trodden paths in quest of ways and means calculated to relieve suffering, hasten convalescence and restore to perfect health.

This article will resolve itself into the writer's personal methods and opinions on matters surgical, and will deal, first, with those topics considered in minor surgery, but which, however, hold no minor position in modern surgery.

Anaesthetics and Anaesthesia.

Selections of anaesthetics: Shall it be ether or chloroform? No new light has been thrown upon this subject, but gradually the world is being converted to the former. Ether is unquestionably safer, both as regards primary and secondary effects. Chloroform is only to be selected when ether is contraindicated, and I am free to say that the contraindications are growing fewer and fewer. Chronic alcoholism, pulmonary and cerebral conditions, and possibly nephritis, form the only indications for the use of chloroform.

My preference is for an initial use of nitrous oxide, followed by ether, both to be given in Prof. Packard's inhaler. This inhaler is so arranged that there need be no interruption in changing from nitrous oxide to ether.

Anaesthesia is commenced with nitrous oxide and continued

until the patient is unconscious, usually about one minute. Ether vapor is gradually allowed to enter the apparatus, and complete surgical anaesthesia is established in from two to three minutes. There has been no method ever devised which produces complete anaesthesia with so slight discomfort to the patient.

The use of oxygen with ether or chloroform is highly recommended in severe or prolonged operations. It is invaluable in those cases where cyanosis becomes a troublesome feature.

Now and then on attempting to anaesthetize a patient, usually an alcoholic, one finds that as soon or just a little before surgical anaesthesia is induced, the patient becomes alarmingly cyanotic. This leads us to desist, give air, and then re-apply the anaesthetic, when the cyanosis recurs, and in this way much time is wasted and annoyance occasioned.

The combined use of oxygen and chloroform or ether will entirely obliterate this difficulty; the patient will relax, the breathing becomes natural and the turgidity of the face disappear.

After effects. Much has been written on the subject of post anaesthetic vomiting. Numerous remedies to be given by mouth or hypodermatically (such as ipecac, apomorphine, etc.), have been recommended, the giving of water freely or entirely withholding it, the use of the stomach tube, inhalations of vinegar or acetic acid,—these and a thousand other expedients have been recommended. The whole matter, however, resolves itself into the size of the toxic dose of anaesthetic vapor, and carbonic acid gas, and the question of the patient's susceptibility to these irritants. The smaller the dose the less troublesome the after effects. Nausea and vomiting are reduced to a minimum when anaesthesia is induced with the least possible amount of the vapor. The average amount of ether used in the Packard inhaler is about four ounces per hour, and with its use ether vomiting is rare and of little annoyance.

I am not inclined to experiment with the new anaesthetics, for I see little of promise in them, nothing which surpasses the old and reliable ether, chloroform, nitrous oxide and cocaine.

Spinal anaesthesia has too many disadvantages to deserve more than passing mention, but I fully believe that we are not giving to cocaine the attention which it deserves. Given with care it is not dangerous, and it has greater possibilities than are usually attributed to it.

During this year, 1906, and therefore since the period with which this paper has to deal, I operated upon a woman fifty-seven years of age, who had an enormous goitre. I had read of Kocher's operation under cocaine, but had always felt that it was one thing to operate under local anaesthesia among the

European peasantry and quite another proposition upon our American women.

In this case I resolved to try cocaine anaesthesia, but was prepared at any time upon the request of the patient to administer ether; in fact we had an understanding that she was to ask for the ether any time she wished it.

Three hypodermic syringes of 1 per cent. cocaine were injected along the line of the proposed skin incision. The platysma was divided, the goitre was cut down upon, the incision was carried through the capsule but did not penetrate the parenchyma. The gland was now found to be very readily enucleated. The finger was swept about its surface and it was delivered through the wound. The superior thyroid artery was found and ligated. There was no difficulty experienced as regards the inferior thyroid or the recurrent laryngeal nerve.

With the patient under cocaine anaesthesia she conversed with us throughout the operation, and tests were frequently made while working in the region of the recurrent laryngeal. The operation progressed without any trouble whatever, the patient experiencing scarcely any pain.

This operation demonstrated the superiority of cocaine over any other anaesthetic in goitre and has wonderfully increased my confidence in its use.

Nitrous oxide is capable of inducing surgical anaesthesia, but it is not as pleasant a narcosis as that induced by ether or chloroform. It does very well, however, in operations of magnitude, if not of too long duration. It is often sufficient in suprapubic prostatectomy.

Antiseptics.

Preparation of Patients. Thorough bath. On the day preceding operation scrub thoroughly the field of operation, shave, and apply soap compress.

After anaesthesia is induced, remove the soap compress, and scrub with soap and water, rinse with alcohol and sterile water.

Preparation of Surgeon's and Assistant's hands. First, a thorough and prolonged scrubbing with ammonia, soap and water, using a sterilized scrubbing brush, and cleansing the nails. Rinse with several changes of water. Next, the hands are scrubbed with a solution made as follows: two tablespoonfuls of chloride of lime and two of acetic acid to the quart of water. A brush is used and about three minutes spent in this way. Next, rinse the hands in sterile water.

The hands are now ready for the sterilized rubber gloves. If the solution of chloride of lime and acetic acid is troublesome to the hands, peroxide of hydrogen may be substituted for the acetic acid with satisfactory results.

I am confident that the virtue of antiseptics in the preparation of the hands has been considerably overdrawn. What is really needed is thorough washing, involving the removal of the desquamating epidermis with its contained filth and bacteriological life. After thorough washing, alcohol may be substituted for chemical antiseptics with excellent results.

Suture Material.

Absorbable sutures have in a great measure displaced the use of non-absorbable, and catgut can now be prepared by the Wesselhoeft method so that its tensile strength is maintained and its sterility positive. By soaking in chrome alum it may be hardened so that it will remain in the tissues the desired length of time.

Catgut is used practically altogether for ligature material, for tying off vessels, stumps of the broad ligament, pedicles of ovarian cysts, for peritoneal and intraperitoneal sutures, in fact everywhere where it is desirable that the suture shall not remain intact.

Abdominal wounds are closed by catgut suture of the peritoneum, Pagenstecher Davison suture of the fascia, and Pagenstecher or silk for subcutaneous closure.

The Pagenstecher thread is made of linen and covered with a thin coating of celluloid. This coating liquifies in the tissues and permits of easy removal of the suture. A Pagenstecher Davison suture after the upper end is cut may be removed without difficulty from an abdominal wound ten inches in length by simply pulling upon the loose projecting end. In intestinal suture we use silk or Pagenstecher thread and allow it to remain.

I am personally very much opposed to the use of an unabsorbable ligature in any locality where it can be avoided. I have spent too much of my time in late years in delving in the mysteries of the peritoneal cavity, in following up sinuses which have led to infected ligatures. Some of the meanest operations I have ever undertaken have been for this purpose. One, in particular, made about a year ago upon a young woman who had undergone tubo-ovariotomy in a neighboring city, at which time braided or twisted silk had been tied about the broad ligament. The wound became infected and discharged through a sinus continuously.

The case came to me for relief and I made an abdominal section, followed the sinus down among intestines bound down by firm adhesions, directly to the silk which was still about the pedicle. The intestines were so firmly adhered and bound together that in spite of the greatest care they were penetrated twice.

I recall also a woman who had undergone nephrectomy in

a distant city, at which time a silk ligature was tied about the pedicle. The sinus had persisted over a year and she came to me for relief. Suspecting that an unabsorbable infected ligature was the cause of her trouble, the wound was reopened, and with great difficulty the ligature was found and removed.

Without doubt I have over a hundred times had occasion to remove infected unabsorbable ligatures, seldom in cases of my own, for I have very rarely used them except by the Davison method where they are easily removed.

Silkworm gut is a poor substitute to be used by the Davison method, as it is difficult to remove. In attempting to withdraw the stitch much pain is occasioned and not infrequently the gut breaks and a portion is left. Even in a short wound, such as herniotomy, this accident has repeatedly occurred.

Drainage.

If one would have uniformly aseptic wound closure it can be obtained in practically every case by carefully observing the following fundamental principles:

1. Absolute surgical cleanliness.
2. The stopping of all bleeding.
3. Accurate approximation in suturing.
4. Temporary drainage, if necessary.
5. Enforced rest.

Under the first two headings there is nothing to add to what has already been said and thoroughly demonstrated by years of experience in the hands of all operators.

Under accurate suturing too much cannot be said to emphasize its importance. Careless suturing cannot fail to leave interstices in the tissues in which serum will accumulate.

This leads us directly to the consideration of the fourth topic, viz., the institution of temporary drainage. I would not have it understood that I favor tube or gauze drainage in wounds where first intention healing is desired, for as experience increases, a greater confidence in one's technique is developed and the tendency is to drain less and less.

I wish to go on record, however, as approving of a few twisted strands of silkworm gut carried deeply into the wound, the end left protruding at the angle of the wound. In case of a long wound in fleshy subjects two drains are used. In a very short incision in thin patients it may be dispensed with altogether. It is rather astonishing to see the amount of bloody serum which is brought out of the wound and deposited upon the gauze by capillary attraction, when the silkworm gut drain is used.

It is admitted by the writer that uncontaminated serum would not in itself lead to suppuration, yet it is known that ideal asepsis in the operating room is impossible. If in doubt

of this, expose some gelatine plates in the atmosphere of an operating room and observe the cultures which will be implanted upon the surface. The surgical wound is made in this same germ laden atmosphere and the blood serum, maintained at body temperature, constitutes the best possible culture medium. Drain away this serum by capillary attraction and a very important step in first intention healing is achieved. After forty-eight hours these drains are removed. Dressings are so made that it is unnecessary to expose the wounds in order to remove these strands of silkworm gut.

Enforced rest of that part of the body where incised wounds are made is important in order to insure first intention healing. This is best obtained by placing a folded gauze pad over the wound and strapping with surgeon's adhesive plaster. This pad tends to obliterate any spaces which may be left after suturing, expresses the air, prevents capillary oozing and gives added support and enforced rest to the tissues.

Plaster of Paris or wooden splints are of great service in operations upon the extremities, and a plaster of Paris spica is of immense advantage in maintaining rest after hernia operations in children.

Abdominal drainage. In acute septic peritonitis where drainage is necessary, strips of gauze are in every respect preferable to drainage tube. The tube in the abdomen drains from a very limited area, and is positively dangerous, being frequently the cause of fecal fistulae from pressure necrosis. Gauze has the disadvantage of being difficult to remove, and causing the patient much pain when it is being done. This is overcome by the administration of gas. If the gauze wick is surrounded with gutta percha tissue or carried through a rubber cylinder it can be removed as easily as a drainage tube.

Shock.

Rapid operating, thus diminishing the time that the internal viscera are exposed and undergoing manipulation, and cutting short the time the patient is under an anaesthetic, will greatly reduce or entirely overcome the element of shock. Perhaps a dozen times during the year we have resorted to stimulants or intravenous salines while the patient was on the operating table.

The indiscriminate giving of hypodermics of strychnia, nitroglycerine, etc., is to be deplored. I am convinced that strychnia sulph. is of very little value as a heart stimulant, and its continued use is worse than useless. If a patient gets into a condition where he actually needs relief, an intravenous saline should be given. Recently Adrenalin has been highly recommended.

Present Status of Surgery.

The last half century has witnessed a great wave of new life in surgery. One organ after another, thought hitherto to

present insurmountable barriers to surgical achievement, has been boldly attacked and operated upon successfully. The limit of advancement, if considered from an anatomical point of view, has therefore been reached. We have invaded every cavity of the body, operated upon every organ, and may sigh with Alexander for more worlds to conquer.

Nothing hitherto known in the realm of therapeutics can be compared with this triumphant advance in surgery. Where will it end? It cannot readily acquire larger fields. Recent encroachments upon the domain of the so-called medical diseases have not proven very brilliant successes, to wit.—Talma's operation for cirrhosis of the liver, Edebohl's decapsulation of the kidney for the cure of Bright's disease, and brain surgery in general.

There are diseases which are purely medical and doubtless will always remain as such; others which belong to the domain of surgery, and the true advancement of this century will not consist so much in the encroachment of surgery upon the field of medical therapeutics as in improvement along its own legitimate sphere.

Cancer.

The most serious menace to our civilization is the rapid increase in the prevalence of cancer. In our own city of Boston the ratio of cases to living persons having almost trebled in twenty-four years.

The future may determine whether cancer will ultimately be reckoned as a surgical or medical disease. At present it is considered surgical, notwithstanding the prediction of a few years ago that in the realm of electro-therapeutics a cure had been found in the X-ray. This is now practically obsolete, in so short a time in medicine does the star rise and set. The Rontgen ray has found its place in the treatment of cancer, though a surprisingly small one. A few superficial malignant growths can be cured in several months' treatment that could be treated surgically in as many minutes. It is palliative in inoperable cases.

Surgery at the present time is the scientific method of treating cancer, but it leaves much to be desired and has decided limitations. Early and thorough operations result in perhaps fifty per cent. of cures. Late or incomplete operations are of no value as a radical cure, and may not even palliate.

I do not see how further progress can be expected in the surgical treatment of cancer. We now ask for our cancer cases as early as possible, and frequently get them, and expect in the majority of these localized lesions to have a radical cure.

One of the most serious errors which a physician can make is to treat as benign a tumor which is in reality malignant.

Many times patients have come to me with far advanced cancer of the breast who were told a few years or months ago that the bunch was of no consequence and needed no especial consideration.

There is only one safe way to treat a bunch in the female breast. This consists in regarding all such lesions as malignant or likely to become such. Operation should be performed. If the growth is innocent it can be determined, and the tumor only should be removed. If malignant, the whole mammary gland should be removed and the axilla cleared.

During the year twelve cases of tumor of the breast were operated upon; ten were malignant and two benign. Of these cases fifty per cent. I consider as permanently cured. There were five early and five late operations.

Cancer is at first a localized disease and if radically treated will not recur. Radical operating involves very extensive removal, first of the entire mammary gland with a wide margin of skin on all sides of the new growth.

If operated upon early it may not be necessary to remove the pectoralis major and minor, but it is always imperative to dissect away all the fascia of the pectoral muscles. The axillary and subclavicular regions are then opened up freely, the vessels and nerves exposed, and all the lymphatic glands with every vestige of adipose tissue removed. The fatty tissue is, of course, in itself harmless, but minute infected glands are always found imbedded in it, hence great importance is attached to its removal.

Late operating in cancer is almost universally followed by recurrence, but operations are, nevertheless, frequently indicated as a palliative measure.

The clearing of the axillary space prevents extension in that region with its attendant pressure symptoms, brachial neuralgia, and oedema of the arm. The removal of the tumor does away with the ulcerating and offensive sore which is one of the worst features of cancer of the breast.

There are numerous cases so far advanced or of such a malignant character that no operation should be performed. I refer especially to that type of cancerous involvement of the breast and thoracic wall which involves the lymph channels for quite a distance, apparently into healthy tissue. At the same time there is a brawny, indurated, not well defined, involvement of the skin which extends widely in all directions. Such cases progress very rapidly and would recur almost before the wound could heal.

Appendicitis.

During the year the appendix was removed in one hundred and forty-seven cases. Seventy-four operations were made for acute appendicitis, without a death; twenty-four operations were

made for acute suppurative appendicitis with peritonitis, with four deaths, and forty-nine operations were performed on the chronically inflamed appendix, including cases in which the appendix was removed during abdominal section for other pathologic conditions.

Comment upon these cases is perhaps unnecessary. A perusal of these figures is more eloquent than any words of mine. All cases of acute and chronic appendicitis, not associated with extensive peritonitis, recovered, the deaths all occurring in acute suppurative cases, where general peritonitis existed.

Figured upon the percentage basis, the mortality in cases of

Acute appendicitis not associated with general peritonitis	0%
Chronic appendicitis not associated with general peritonitis	0%
Acute suppurative appendicitis with peritonitis	17.4%

It is most gratifying to note the extreme sagacity which characterizes the general practitioner today in dealing with appendicitis. Early, accurate diagnosis and immediate operation is the rule of the day. Operations during the first twenty-four hours are by no means uncommon.

To the general practitioner belongs the credit for the low death rate in this disease. For the surgeon to operate only upon uncomplicated cases means that they must be seen, diagnosed and turned over to him without delay. This our medical men are doing, greatly to their credit, to the welfare of humanity, and to the good repute of surgery.

Gall-Bladder.

In the surgery of the gall-bladder one death occurred out of a total of eleven operations.

It is worthy of note that in over seven hundred operations such a small percentage of gall-stone operations were performed. It is also worthy of comment that these cases were of so critical a nature. Some of them were badly jaundiced from stones in the common duct.

While commenting favorably upon the conduct of physicians in general practice in reference to their promptness in having their cases of appendicitis operated upon, we cannot praise them so highly in the treatment of cholelithiasis, for here we encounter quite frequently cases which we as surgeons consider neglected, and of which physicians themselves will take a similar view in a year or two to come.

In the fatal case which follows no fault can be found with the physician who summoned me, for the case had only recently come into his hands.

Mrs. G., aged forty-six, was taken suddenly ill eleven weeks ago with epigastric pain, nausea and vomiting. She had several attacks of a similar character during the years preceding. This attack lasted two days, when jaundice appeared. She im-

proved somewhat under treatment for indigestion, but had over twenty attacks of severe pain during her eleven weeks' illness. The jaundice would greatly increase and then somewhat subside. Three weeks ago she had an exceedingly severe attack, and vomiting has been a disturbing symptom during this time. When I saw her on March 27, 1905, she was very icteric, much emaciated, pulse rapid and feeble. She was not suffering intensely, but was exceedingly sensitive over the gall-bladder and a considerable tumor could be readily outlined beneath the liver. It was a very clear picture of common duct obstruction. Operation was undertaken as a last resort. The gall-bladder was found filled with stones, greatly distended and gangrenous. A calculus was removed from the common duct. A rapid operation was done and the wound left open, drained by tube and gauze. She sank rapidly and died within twenty-four hours.

The other ten cases were successfully operated upon and made uneventful recovery, save one whose post-operative history was so serious that it should be placed on record.

Mrs. C., aged sixty-three, was operated upon for gall-stones. She had been troubled with gall-stone colic for twenty-five years, two severe attacks with jaundice, the last one so severe that she decided to have operative relief.

I operated May 16, 1905, and removed the gall-bladder containing biliary calculi. The cystic duct was ligated with fine Pagenstecher thread, but it was impossible to bury the stump in peritoneum on account of the inaccessibility of the stump. All went well for thirty-one days and the patient was sitting up and about the room when she was suddenly seized with violent pain in her abdomen, nausea, vomiting and collapse. I hurried to her assistance, etherized her, opened up the abdomen through the old incision and evacuated a quantity of bile, washed out the peritoneal cavity and drained with gauze wicks. Microscopic examination of the fluid removed from the peritoneal cavity showed a mixed infection of streptococcus and colon bacilli. She made an excellent but slow recovery. I am confident that her life was saved by prompt interference. This is the only case of cholecystectomy in which I have ever experienced any such trouble.

In a series of cases which I published four years ago, the length of time during which biliary fistulae persisted after cholecystostomy was five weeks. This average time was greatly lengthened by a few cases which persisted for months.

In cholecystectomy my results have been very much more satisfactory. The average patient has remained in the hospital from two and a half to three weeks. In only two cases during the year has bile appeared at the site of temporary drainage, and then only in small quantity and for two or three days. It

came from the lacerated surface of the liver and not from the ligated duct.

The after results in cholecystectomy, as far as I have been able to judge, are even more satisfactory than the drainage of the gall-bladder. After this latter operation I have observed considerable pulling and dragging upon the adhesions caused by the suturing of the gall-bladder to the parietal wall. In one case after cholecystostomy the subsequent history was indicative of reformation of calculi.

In none of my cases have any symptoms developed showing any disturbance of the digestive apparatus following the removal of the gall-bladder. So satisfactory have been my results in total removal of the gall-bladder that I perform this in preference to cholecystostomy unless contraindicated.

Stomach Surgery.

Great advancement has been made in the treatment of surgical conditions of the stomach within the past few years. The time is ripe for a general awakening of the profession to the fact that practically all non-cancerous affections of the stomach which have resisted a prolonged course of scientific medical treatment are suitable cases to be treated surgically, and can be cured by surgical means. It is also true that this can be brought about in a very short period of time, usually within a month.

All cases of pyloric obstruction are surgical. Think of the cases which are treated medically year in and year out, where imperfect evacuation of the stomach with its consequent dyspepsia from fermentative changes is the chief factor. Imperfect drainage and inability to promptly empty itself of its contents is the cause of all these symptoms. It is a mechanical condition which can be cured only by mechanical means. The physician should not continue to treat these cases month after month when by surgical means the cure is rapid, satisfactory, lasting, and attended with very few risks.

The relation of cancer to gastric ulceration is now established. The constantly irritated ulcer is prone to develop carcinoma. Operation before malignancy has developed is curative, after this change has occurred only palliative.

Ulcer of the stomach is of far greater frequency than internists would give us to understand. Their location is usually along the lesser curvature, frequently on the posterior wall at the pyloric one-third. The healing of the ulcer when it occurs spontaneously is usually followed by cicatricial contractions which narrow the pyloric orifice and interfere with emptying the stomach. This organ dilates, food stagnates and undergoes fermentation and decomposition, and is finally vomited, frequently in large quantities, and foul smelling.

During the year 1905 only three stomach operations were

performed. They were all of them interesting and instructive, and will be given in some detail.

Case I. Stricture of pylorus.

Mrs. H., aged 38. Patient of Dr. Stedman's of Brockton. Entered the Massachusetts Homeopathic Hospital on August 17, 1905. She gave the following history: Father and mother deceased; cause of death, old age. Three brothers, one living, two dead; cause of death, phthisis and membranous croup. Three sisters living. Her present illness began about six or eight months ago with pain in the back and in both sides, also in the abdomen. Now this pain is more severe in the left side of the abdomen, somewhat above the pelvic region. During the past month she has been much worse, unable to do anything, and vomits considerably. Most of the attacks seem to come on in the early evening and night. There is a feeling of distension of the stomach, and food lies heavily. She has not lost much flesh, but is increasingly uncomfortable and is willing to undertake any operation which promises relief.

We kept her in the hospital eight days under careful observation, during which time she presented symptoms of gastric derangement. Vomitus was carefully examined and a test meal was given, but no evidences of cancer were discernible.

On August 25, 1905, we decided to make an exploratory incision. We came upon a nodular growth which seemed to be cancer of the stomach. It had formed a well marked stricture at about the junction of the pyloric third with the remaining two-thirds of the stomach. The stomach was bound down by many adhesions. I tried to separate these adhesions but found that it was impossible to do so. A resection of the distal half of the stomach was considered, but this would involve the breaking up of adhesions where we should encounter severe hemorrhage. On the whole it was thought unwise to undertake so formidable an operation. I therefore decided to make a gastro-jejunostomy.

After making the stomach incision preparatory to the gastro-enterostomy, the fingers were introduced into the stomach and it was found that this stricture which I have already described had so narrowed the stomach that it was with difficulty that two fingers could be introduced. The remaining part of the stomach was considerably dilated. In making the gastro-enterostomy a loop of jejunum was carefully sought for, as it makes its exit from the fossa duodeno-jegunalis. A sufficient length of jejunum was secured that there should be no tension exerted upon it, and also so as to provide an opportunity for the requisite turning of the jejunum so that the peristalsis would be in the right direction.

Again, we were careful not to leave any superfluous length

of the jejunum to become filled with bile and pancreatic fluid. In other words, we did everything in our power to prevent the establishment of symptoms incident to "vicious circle." An anastomosis between the stomach and jejunum was made with catgut and Pagenstecher sutures, the opening into the stomach and intestine about three and one-half inches in length. This I thought to be ample to permanently afford an adequate communication. The abdominal wound was closed, with the exception of an aperture left at the upper end of the incision where a wick of gauze was left for twenty-four hours.

The operation consumed about an hour and a quarter. Patient returned to her bed with a pulse of 112, and in excellent condition. Patient made a very satisfactory convalescence and left the hospital on the seventeenth of September, twenty-three days after her operation.

During the time of the operation you will recall that I was laboring under the impression that this patient was suffering from cancer, although in the microscopical and chemical examination of the stomach contents no evidence of cancer could be found. The report of the test meal was as follows:

Hydrochloric acid, seven per cent.

Lactic acid, absent.

Food fragments.

During the operation I removed tissue from the stomach wall at the point of stricture and also enlarged mesenteric glands. These were submitted for pathological examination, which report follows:

"Sections consist of a fibrous stroma, a considerable accumulation of small round lymphocytic cells and adipose tissue. No epithelial elements are present in any part and no indication of any malignant condition can be found."

On August 27, 1905, this operation was performed. On the seventeenth of September she left the hospital, as we hoped, cured. I saw her in January and she was enjoying excellent health. I was therefore surprised to hear very discouraging news from her during the following month. I saw the patient with Dr. Stedman. Her abdomen was distended and a tumor could be outlined beneath the liver. Recently she had vomited considerably. A diagnosis of probable cancer was made and confirmed by exploratory incision.

The second operation was performed March 1, 1906, with the hope that we might be able to relieve intestinal obstruction which we thought might be near the site of the gastro-enterostomy.

We found on opening the abdomen she was completely filled with metastatic cancerous nodules. All hope was abandoned and the wound was closed. She died April 16, 1906.

One point comes out prominently in this case, and that is

that clinical diagnosis should be given great weight. It seemed like cancer while we were operating, but the microscope failed to detect it.

Here I would like it understood that I do not question the correctness of the pathologist's work; the error probably was my own in not sending tissue to him which was characteristic of the growth. This is a frequent source of error and one hard to absolutely guard against, for there are locations like the diseased stomach or intestine wall where it is difficult to cut deeply enough to secure an unquestionably typical specimen.

Case II. Cancer of Oesophagus at cardiac end of stomach.

Mr. F., aged sixty-one, had been having a great deal of difficulty in swallowing solid food; recently liquids would pass only slowly and choking times were frequent and severe. He had emaciated greatly of late and was so uncomfortable and failing so rapidly that relief was imperative. Bougies were passed and the site of the stricture was found to be in the oesophagus, very near the cardiac orifice of the stomach.

On September 25, 1905, I performed a gastrostomy by Witzel's method and fed him through a catheter which we carried through the abdominal wall into the stomach.

This operation was very successful from a surgical point of view, for the wound healed, except at the sinus, which it was intended should always remain patent. This sinus communicated with the interior of the stomach and would readily admit a soft catheter through which liquid nourishment was injected. After the feedings the catheter was removed and there was no regurgitation through the fistula. I feel therefore that this operation is all that is claimed for it, and had this patient been suffering from a benign rather than a malignant stricture, life and comparative comfort might have been his lot for years to come.

Case III. Chronic Gastric Ulcer.

Miss R., aged thirty-two, was seen by me in December in consultation with Drs. F. P. Batchelder and Horace Packard. She complained of much pain and distress in the stomach, often burning in character, after eating. For nearly a year these symptoms of acute indigestion had persisted, oftentimes very aggravated, at other times less severe. There has never been any nausea, no hematemesis, always great relief in lying down. On December 30, 1905, I made an incision along the middle of the right rectus muscle. The stomach was turned out and an ulcer found midway in the course of the lesser curvature of the stomach. Adhesions existed, sealing it to the transverse colon. After freeing up adhesions the ulcer was excised and the edges of the stomach brought together with two rows of hardened cat-gut and an external peritoneal suture of Pagenstecher. The

patient made an excellent recovery from the operation, has gained eight pounds in weight, is free from pain, eats everything she chooses, and considers herself well.

Caesarean Sections.

During the year two cases of pregnancy complicated by large uterine myomas occurred in my practice.

In case a myoma occupies the fundus of the uterus it is unusual for it to prove a serious menace during delivery of the child. It may be the cause of alarming hemorrhage at delivery, or, if pedunculated, its pedicle may become twisted and the tumor strangulated. The chances, however, are greatly in favor of a normal delivery and convalescence.

If situated low in the body of the uterus and observed early it should be treated by myomectomy in the early months of pregnancy. If not observed until pregnancy is far advanced the woman should be allowed to go to full term, or nearly so, when a Caesarean hysterectomy should be performed, with every expectation of saving the mother and child. We know that hysterectomy is the rational, generally accepted method of treating large uterine myomas.

There is no question but that women are well fortified against loss of blood, shock, etc., at about the termination of the period of gestation. There is no argument against performing a Caesarean hysterectomy, delivering a normal child through the abdominal wall and proceeding with the removal of the uterus with the fibroid tumor.

In the Caesarean sections made during the year for uterine myomas exceedingly satisfactory results were obtained, the patients making rapid and uneventful recoveries.

These cases will be found at length in an article entitled "The Uterine Myoma as a Complication in Pregnancy; with report of two cases of Caesarean hysterectomy" in the *Journal of Surgery, Gynecology and Obstetrics*, 1906.

Prostatic Surgery.

In 1904 we thought we had quite definitely settled the question of the proper operation for hypertrophical prostate, and perineal prostatectomy seemed to be the generally accepted method with us at the Massachusetts Homeopathic Hospital. Very suddenly, however, the pendulum has swung and today the suprapubic incision is used. Naturally the question will be asked, Why this radical change?

There are fashions in surgery as well as in spring hats. The last spring's hat is not always discarded because it is worn out, nor is a method of operation changed solely because it is no longer serviceable. Perineal prostatectomy is as good an

operation this year as it was last, and perhaps considerably better, because of improved technique.

Vaginal hysterectomy is of as great service as it was seven years ago, but it is not done nearly so frequently. The style has changed, and the abdominal route is now very generally used, and we think with better and more radical results.

In prostate operations, with us at the hospital, the suprapubic route is generally employed and has, we claim, these points of superiority:

1. It is much more quickly done. I have been able in several cases to enucleate the prostate in less than five minutes, in one case in two minutes.

2. Anaesthetic may be nitrous oxide, or if ether is used the patient need not be under its influence more than ten or fifteen minutes.

3. Drainage. The bladder may be kept clean by continuous irrigation. A constant stream of boracic acid solution may be carried into the bladder through a catheter adjusted in the urethra and pumped out by a hydraulic pump arranged in the suprapubic wound. This constant inflowing of an antiseptic solution and continuous pumping out of the solution and all contained debris keeps the bladder and prostatic wound in as healthy condition as it seems possible to obtain.

4. The after results have been in my experience exceedingly gratifying. It might be well to state at this time that while my article has to deal with the year 1905, my work upon the prostate by the suprapubic route commenced then but has mostly been done during the year 1906. Most of my cases before that time were done by the perineal route.

I cannot think that the suprapubic route has entirely supplanted the perineal, for I am convinced that the small sclerosed but nevertheless obstructed prostate is difficult to remove by suprapubic enucleation. I am inclined to think that within a short time we shall be able to select our cases and shall find some which can be advantageously attacked via perineum and others which lend themselves more readily to the suprapubic operation.

Summary of Pathological Conditions for Which Operations Were Performed

DISEASES.	Total	Cured.	Improved	Not Improved	Died
<i>Diseases and Injuries of Glands:</i>					
Breast malignant	10	8	1		1
" non-malignant	2	2			
<i>Diseases and Injuries of Nervous System:</i>					
Tic douloureux	2	2			
<i>Of lungs and pleura:</i>					
Empyema	3	2			1
<i>Diseases and Injuries of Digestive System:</i>					
<i>Of lips and mouth:</i>					
Epithelioma	1	1			
Hare lip	1	1			
<i>Of stomach:</i>					
Ulcer	2	2			
Carcinoma	1				1
<i>Of intestines:</i>					
Carcinoma	2				3
Obstruction	4	1			3
Ulcer of Duodenum	1				1
<i>Of gall bladder and liver:</i>					
Carcinoma	2			1	1
Cholelithiasis	11	10			1
<i>Of rectum and anus:</i>					
	30	30			
<i>Diseases and Injuries of Genito-Urinary System.</i>					
<i>Of kidney:</i>					
Floating	6	6			
Tuberculosis	2	2			
Hematoma	2	2			
<i>Of urethra:</i>					
Stricture	4	4			
Perineal fistula	1	1			
<i>Of penis:</i>					
Phimosis	6	6			
<i>Of scrotum:</i>					
Hydrocele	4	4			
<i>Of bladder:</i>					
Tuberculosis	2	1	1		
<i>Of prostate:</i>					
Hypertrophy	3	3			
<i>Of testicle:</i>					
Undescended	2	2			
<i>Of spermatic cord:</i>					
Varicocele	3	3			
<i>Totals carried forward</i>	108	93	2	1	12

DISEASES.	Total	Cured.	Improved	Not Improved	Died
<i>Totals brought forward</i>	108	93	2	1	12
<i>Diseases and Injuries of Female Genital Organs:</i>					
Abortion	3	3			
Pregnacy extra uterine.....	2	2			
Retained placenta	1	1			
Eclampsia	2	2			
<i>Of vulva:</i>					
Abscess.....	2	2			
Carcinoma	2	1	1		
<i>Of vagina;</i>					
Vesico-vaginal fistula.....	3	2	1		
Stenosis	2	2			
Cystocele and rectocele.....	13	13			
Recto-vaginal fistula	2	2			
<i>Of urethra:</i>					
Caruncle.....	2	2			
<i>Of uterus:</i>					
Carcinoma	6	5			1
Endometritis	35	35			
Fibromyoma	30	29			1
Lacerated cervix and perineum	63	63			
Polypus.....	2	2			
Procidentia	4	4			
Stenosis of cervix	10	10			
Retroflexion.....	21	21			
Perforation	1	1			
<i>Of ovaries:</i>					
Cyst	23	23			
<i>Of tubes:</i>					
Hydrosalpinx	1	1			
Pyosalpinx.....	8	8			
Salpingitis	43	42			1
<i>Diseases and Injuries of Head and Face:</i>					
Malignant.....	1	1			
Non-malignant.....	3	3			
Traumatism	3	3			
<i>Diseases and Injuries of Neck:</i>					
Abscess.....	1	1			
Sarcoma	2		2		
Tumor.....	3	3			
Tubercular lymphangitis	16	16			
<i>Diseases and Injuries of Abdomen:</i>					
Adhesions, peritoneal	2	1	1		
Peritonitis	9	9			
" tubercular.....	4	3	1		
Appendicitis, acute.....	74	74			
" suppurative.....	24	20			4
" chronic	49	49			
<i>Totals carried forward</i>	580	552	8	1	19

DISEASES.	Total	Cured.	Improved	Not Improved	Died
<i>Totals carried forward</i>	580	552	8	1	19
<i>Of abdominal wall:</i>					
Single femoral hernia.....	1	1			
“ inguinal “	13	13			
Double “ “	1	1			
Strangulated hernia	3	2			1
Umbilical hernia	4	4			
Ventral hernia	8	8			
<i>Diseases and Injuries of Trunk, Excepting Bones and Joints:</i>					
<i>Of Upper Extremities</i>					
Actinomycosis	1	1			
Abscess.....	2	1	1		
Sepsis	2	2			
Burn	2	1	1		
<i>Of hand:</i>					
Sepsis	8	8			
Traumatism	2	2			
<i>Of leg and thigh:</i>					
Abscess.....	2	2			
Burn	1	1			
Non-malignant tumor.....	4	4			
Ulcer	3	3			
Sepsis	1				1
<i>Of foot and toe:</i>					
Traumatism	1	1			
Gangrene	3	2			1
Sepsis	2	2			
<i>Diseases and Injuries of Bones and Joints:</i>					
<i>Of head:</i>					
Necrosis of maxilla.....	3	1	2		
Fracture of skull.....	1	1			
<i>Of upper extremity:</i>					
Dislocation	4	4			
Fracture	17	17			
<i>Of trunk:</i>					
Caries tumors, etc.	8	8			
<i>Of lower extremity:</i>					
Fracture.....	5	5			
Osteomyelitis	1	1			
Tuberculosis	3	3			
Fracture of patella	2	2			
Floating cartilage of knee.....	2	2			
<i>Of foot:</i>					
Traumatism.....	3	3			
Necrosis	1	1			
<i>General diseases:</i>					
Unclassified.....	7	7			
TOTALS	701	666	12	1	22





